

FOR THE RECORD

June 9, 2014

Mr. Gary Altman
Legislative Counsel
New York City Council
City Hall
New York, New York

RE: Committee Hearing on the Rahway Arch Site Remediation, June 12, 2014

Dear Mr. Altman:

I recently received a letter from Mr. Mark Smith of Soil Safe in which he forwarded me your May 27, 2014 email to him regarding the planned joint meeting of the Committee on Environmental Protection and the Committee on Waterfronts to be held on June 12, 2014 regarding remediation of the Rahway Arch site in Carteret, New Jersey. A copy of Mr. Smith's letter is attached.

I am a New Jersey Licensed Site Remediation Professional (LSRP) and have been engaged by the property owners to be responsible for the remediation of the Rahway Arch site. Under New Jersey law, enacted via the Site Remediation Reform Act (C.58:10C-1 et seq. - SRRA); remediation of contaminated sites in New Jersey is performed under the supervision and direction of an LSRP.

The LSRP is responsible for ensuring that the remediation is planned, designed and implemented in accordance with New Jersey's Administrative Requirements for Remediation of Contaminated Sites (NJAC 7:26C - ARRCs), the Technical Requirements for Site Remediation (NJAC 7:26E - Tech Rule) and applicable New Jersey Department of Environmental Protection (NJDEP) guidance documents. The LSRP's highest priority is protection of public health and safety and the environment.

The majority of the Rahway Arch site is owned by Rahway Arch Properties, LLC, although two parcels within the contaminated area are owned by the Borough of Carteret. I have been engaged by both parties for remediation of the entire site. As LSRP, I have been responsible for investigating the site, establishing the remediation objectives, preparing the remedial action workplan (RAW) and designing the capping system that will be the primary engineering control for site remediation. I will also be responsible for overseeing the remediation as it is performed, on behalf of both property owners, ensuring that the requirements of the RAW and remedial design are met and issuing the final remediation document once the remediation is complete.

As LSRP, I am also responsible for responding to inquiries from the public regarding the remediation. Soil Safe has been selected as the remediation contractor because of the superior properties of the engineered fill material they will manufacture to construct the cap system. Soil Safe is neither the property owner nor the responsible party for the site remediation.

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Over the past several years a number of negative newspaper, television and web articles have been published about this remediation project that contain significant errors. I believe that these erroneous statements are the reason why the Committees are holding this hearing in the first place. As a result, the property owners have requested that I provide factual information regarding this site remediation so you can see for yourself this project is necessary for public health and safety and environmental protection of the Rahway River and its environs.

I request that this letter be included as part of the formal record for this upcoming hearing.

Site Description and Background

The Rahway Arch site is a 124.7 acre property that was used by American Cyanamid (now Cytec) from the 1930s through the 1970s to dispose of approximately 2,000,000 tons of alum and yellow prussiate of soda (alum-YPS) sludge in six sludge lagoons, covering approximately 85 acres of the property. This sludge and additional undocumented fill that has been placed on this site are contaminated with cyanide, metals and polynuclear aromatic hydrocarbons (PAHs). My investigations have shown PAH contamination up to 300 times the New Jersey Non-residential Direct Contact Remediation Standards.

The site requires remediation to correct numerous environmental and safety problems. At the present time, 25.5 million gallons of water per year percolate through the contaminated materials and into the groundwater and the adjacent Rahway River. The berms that form the impoundments were constructed in the 1930s and are not stable. A catastrophic berm failure will release the contaminated materials into the adjoining wetlands and the River. The surfaces of the impoundments are unstable and pose a safety hazard to people and wildlife that enter the site. The NJDEP has recognized the need to remediate the site and on May 30, 2014 rescinded the No Further Action/Covenant Not to Sue (NFA/CNS) decision that was granted to Cytec in 2002.

In accordance with New Jersey law, this site must be remediated. I intend to remediate this site using an engineered capping system that will:

- ❑ Eliminate direct contact hazards
- ❑ Stabilize the impoundments and berms
- ❑ Control and manage stormwater
- ❑ Eliminate infiltration into the groundwater and River
- ❑ Eliminate the on-site safety hazards

The remediation will be fully compliant with New Jersey regulations and technical guidance for site remediation. This was confirmed by NJDEP during a nine-month long component review of the RAW and remedial design. The cap system will be constructed by Soil Safe using recycled soil manufactured into engineered fill in an on-site soil recycling facility. This is the only purpose for the recycling facility, and it will be removed upon completion of the site remediation.

The permitting process for this site remediation has been going on for four years. Five local public hearings have been held which have resulted in unanimous approval votes by the Borough of Carteret Planning Committee, Middlesex County Planning Department, Middlesex County Solid Waste Advisory Committee and Middlesex County Board of Chosen Freeholders. The remediation plans have been reviewed by five separate departments at NJDEP, Freehold Soil Conservation District and the U.S. Army Corps of Engineers. I anticipate that the last permit necessary before we can begin the site remediation will be issued this summer.

Some of the incorrect statements regarding this remediation project that I need to address with the correct information and facts include:

- *"The Project will be importing "toxic" and "highly contaminated" waste."*

This is incorrect. No solid, toxic or hazardous waste will be brought to the site. Only approved recyclable materials will be brought to the site and will be used in a proven process to make the engineered fill for the cap system.

The recycled material used to construct the cap system must meet New Jersey Residential Direct Contact Soil Remediation Standards for all constituents except six polynuclear aromatic hydrocarbon (PAH) compounds that currently exist on the site at concentrations that exceed the Standards. The allowable concentrations of these six compounds in the recycled material that will be used to construct the cap system will be less than 40% of the average concentrations of these six compounds that already exist on the site today.

To be clear, the recycled engineered fill material used to cap the site will be a durable soil-cement matrix that will be overwhelmingly residential in chemical quality, except for six compounds, and the concentrations of those six compounds will be substantially less than what is already on site today. Finally, the entire surface of the cap system will be covered in 12" of clean soil meeting all residential standards.

This remediation and closure process is identical to the remedial designs engineered and permitted for contaminated sites all over the country, including in New York by DEC at the Fresh Kills Landfill which is directly across the Arthur Kill, quite literally overshadowing the Borough of Carteret.

To reiterate; no toxic, solid or hazardous waste will be used in this project.

- *"The project will create a chemical waste repository along the Rahway River."*

This is incorrect. At the present time, the site is a chemical waste repository and is discharging leachate into the groundwater and the Rahway River, approximately one half mile upstream from the Arthur Kill. It was used to dispose of 2,000,000 tons of cyanide contaminated industrial waste from 1937 through 1974. Since that time an unknown amount of undocumented fill, which recent investigations have also shown to be contaminated, has been brought to the site. This project will remediate this site and ensure the waste and

contaminants contained in these old and deteriorating impoundments will not have any future impact on the environment.

- *"No formal project plan has been submitted to NJDEP"*

To suggest that no plan has been submitted to NJDEP, or by extension that NJDEP did not thoroughly review, critique and require improvements to all aspects of this site remediation project is both incorrect and completely unbelievable.

After nearly two years of planning and investigation, completed in concert with NJDEP technical staff at the various divisions, the Remedial Action Workplan and the construction plans for the cap system were submitted to NJDEP on November 29, 2012. Intensive review of these plans was conducted for the next 18 months with the project being extensively reviewed by five separate NJDEP divisions as part of the permitting and approval process. All comments by NJDEP and all other jurisdictional agencies have been satisfactorily addressed.

- *"The project will affect the health and wellbeing of Staten Island residents."*

Remediation of this site will have a positive impact on the health and wellbeing of Staten Island residents. At the present time this site contains uncontrolled deposits of contaminated materials, continues to leach cyanide into the Rahway River and faces the risk of a release if a berm fails. Remediating this site will eliminate the leachate, the potential for berm failure and the potential for release of the contaminated materials into the Rahway River.

- *"The project will place fill in wetlands and waters of the United States that are subject to USACE jurisdiction."*

This is incorrect. The cap system will be limited to the existing contamination. This contamination is constrained by the existing containment berms and is not in wetlands or waters of the United States. No portions of the cap system will be placed in wetlands or jurisdictional waters of the United States. This has been confirmed by USACE following site visits and a plan review.

The site contains 40 acres of wetlands that are outside the containment berms and the limit of remediation. These wetland areas are not part of the remediation project and will not be disturbed. Rather, these areas will be preserved and enhanced. Upon completion of the remediation, approximately 60 acres of the currently contaminated area will be restored to habitat, forming wetlands transition areas that will help protect and preserve these existing wetlands.

- *"The cap will be 29 feet thick"*

This is incorrect. The existing elevation of the 85-acres being remediated is approximately 12 feet above mean sea level. After installation of the cap system, the highest point on the site will be 29 feet above mean sea level. The cap will slope from this high point to stormwater management ponds on the perimeter. This slope is the minimum necessary to ensure proper drainage and prevent water from percolating into the contaminated materials. Overall, the average thickness of the cap system will be 8 feet.

- *"Capping the contaminated site will fill in the flood plain and will cause upstream flooding, and the site has the capacity to store 800,000,000 gallons of flood water."*

Looking at the river hydraulics, the site is not in the floodway. The floodway is adjacent to this site and will not be changed by the remediation.

The site was filled long ago with the alum-YPS waste material. The berms that form the impoundments are approximately 12 feet high along most of the riverbank. In fact, observations made onsite during and after Sandy showed that the majority of the site was **not flooded**, even with the storm surge created by Sandy.

The Rahway River in the vicinity of the site is tidal. Flooding from a severe storm in a tidal area is caused by storm surge coming from the ocean, not water flowing down the river. The problems associated with upstream flooding of the Rahway River are caused by existing constrictions located upstream from this site that restrict water flow during storms. Remediation of this site will not have any impact on those constrictions or flooding. This was explicitly confirmed by NJDEP flood experts and other hydrologists familiar with the area and the site.

The storage capacity of the site is also grossly exaggerated. To store 800,000,000 gallons on 85 acres, the flood waters would need to reach an elevation of 41 feet above mean sea level. If this occurred, not only would the site be flooded but so would most of Manhattan, Long Island and the New York Metropolitan Area.

Finally, I must question the concept of thinking that flooding 85 acres that are contaminated with cyanide, metals and PAHs is a sound environmental engineering practice. As an LSRP, my primary responsibility is to protect human health and the environment. Allowing this site to flood would be in direct conflict with that responsibility.

- *"The weight of the cap will cause the berms to fail releasing the sludge into the river."*

No one has been more concerned about the failing berms than the project design and remediation team. It was clear from the beginning of the design process that this was a geotechnically challenged site. However without site remediation, it is a certainty that the berms will ultimately collapse into the Rahway River, releasing much of the 2,000,000 tons of cyanide sludge.

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Michael Baker Jr., Inc., one of the leading geotechnical engineering companies in the Country, was retained to investigate this site and provide the geotechnical design necessary for the successful construction of this engineered fill cap system. Baker performed field investigations, laboratory analyses, literature searches and extensive modeling. Analyses included both short term and long term slope stability, settlement and bearing capacity of the site.

The results showed that, when constructed following the recommendations contained in Baker's report (and repeated in the Remedial Action Workplan), the engineered fill cap system will meet or exceed acceptable engineering factors of safety both short term during the construction period and long term following the completion of the remediation project. The cap system, constructed as shown on the approved drawings, will result in a safe and stable solution to this long term environmental problem. Also as described in Baker's report and RAW, the stability of the site will be closely monitored throughout the project to ensure that this stability is maintained.

These recommendations were thoroughly reviewed by the LSRP, civil engineers and NJDEP's geotechnical staff. NJDEP has reviewed and signed off on the resulting design, monitoring and construction loading sequencing. There are no technical or factual grounds to conclude that the cap system or the remediation of this site will cause the berms to fail.

□ *"A new flood would spread contaminated soil throughout the area."*

This is incorrect. Precipitation and wind have been spreading contamination from this site for more than 70 years. The site remediation will cap the contaminated sludge and other contaminated materials on the site with a durable layer of low permeability soil cement. This will prevent percolation through the contaminated materials, protecting the groundwater and the River. The capped site will be elevated above the most stringent flood elevations, eliminating the possibility of that the contaminated sludge could be washed out from floods. The environmental hazards of this site will finally be completely eliminated.

Thank you for giving me the opportunity to correct, for the record, some of the many incorrect statements that have been made regarding this remediation project. Correct information regarding this remediation project is also available from the project web site at www.CarteretClean.com. If you have any further questions or would like any additional information about this project, please call me at (410) 290-8777.

Sincerely,
EastStar Environmental Group, Inc.



Albert P. Free, P.E., CSP, LSRP
President

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cc: Ron D'Argenio - Rahway Arch Properties, LLC
The Honorable Daniel Reiman - Mayor, Borough of Carteret
Mark Smith - Soil Safe, Incorporated
Ken Kloo - NJDEP Site Remediation Program

Mr. Altman
June 9, 2014

ATTACHMENT

LETTER FROM MARK SMITH - SOIL SAFE, INCORPORATED

Soil Safe

June 5, 2014

Via Electronic and U.S. Mail

Mr. Al Free, P.E., CSP, LSRP
President

EastStar Environmental Group, Inc.
10632 Little Patuxent Parkway
Suite 106
Columbia, Maryland 21044

Subject: *Email from NYC Legislative Counsel Gary Altman regarding the Rahway Arch Properties Project*

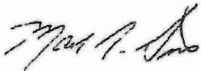
Dear Mr. Free:

On May 28, 2014 the subject email (attached) was received by our sales department. The email is from the office of Legislative Counsel of New York City (Gary Altman) and the subject relates to the Rahway Arch Project. I have received no other correspondence in connection with this matter.

Based on the content of the email, it appears that the Environmental Protection and Waterfront Committees of the New York City Council have scheduled a Joint Committee hearing regarding the potential for the Rahway Arch remediation project to impact Staten Island. It is my strong suspicion that this situation represents, yet again, another attempt by the opposition to spread gross misinformation to unsuspecting authorities. Given the vast amounts of false information that has been disseminated by the opposition to this point, it is difficult to determine exactly what the specific concerns are relative to Staten Island. This situation, however, appears tactically similar to the opposition's numerous prior attempts to generate alarm by promoting false information; as was done to select New Jersey Mayors, EPA, USACE, state politicians, members of Congress, the press and the public.

I am sending this to you for your response, as the LSRP, to the Joint Committees. To my knowledge, neither the Landowner nor the City of Carteret have received any direct communication from the Legislative Council regarding this issue, and will leave it to you to determine how to best reach out to address this matter. We certainly want the Council to get the real facts behind this mandatory project and the extensive investigation, engineering and four year permitting effort that has been done to ensure the safe and efficient remediation of the former American Cyanamid property.

Sincerely,



Mark Smith
President
Soil Safe, Inc.

cc: Ron D'Argenio – Rahway Arch Properties, LLC.

enclosure: May 28, 2014 email – hearings@council.nyc.ny.us

Mark Smith

From: Michael T. Kozak
Sent: Wednesday, May 28, 2014 1:25 PM
To: Mark Smith
Cc: Milt Morris; Bill Roberts
Subject: FW: New York City Council - Hearing Notice

Guys,
See below.
Mike

From: hearings@council.nyc.ny.us [<mailto:hearings@council.nyc.ny.us>]
Sent: Wednesday, May 28, 2014 11:22 AM
To: Michael T. Kozak
Subject: New York City Council - Hearing Notice

May 27, 2014

Mr. Mark Smith
President and CEO
Soil Safe, Inc.
6700 Alexander Bell Drive, Suite 300
Columbia, MD 21046-2184

Dear Mr. Smith,

RE: Oversight: The Rahway Arch Project's Potential Impact on Staten Island: Will Staten Island's Shoreline be Safe?

Please be advised that the Committee on Environmental Protection jointly with the Committee on Waterfronts will hold a hearing on **Thursday, June 12, 2014 at 1:00 p.m. in the Committee Room, City Hall, New York, NY** regarding the above-referred topic.

You are hereby invited to attend this hearing and testify therein. Please feel free to bring with you such members of your staff you deem appropriate to the subject matter.

If you plan to participate, it would be greatly appreciated if you could bring **twenty (20)** copies double-sided of your written testimony to the hearing.

I would appreciate receiving a response from you as to whether or not you will be able to attend. Thank you for your cooperation.

Sincerely,

Gary Altman
Legislative Counsel

GA/ac